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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/828,727   | 04/21/2004  | Bret Ja Chisholm     | 134177-2            | 4780             |
| 23413  | 7590        | 09/15/2005           | EXAMINER            |                  |
| CANTOR COLBURN, LLP<br>55 GRIFFIN ROAD SOUTH<br>BLOOMFIELD, CT 06002 |             |                      | BERMAN, SUSAN W     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1711                |                  |

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1.9

|                              |                               |                                 |  |
|------------------------------|-------------------------------|---------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/828,727 | Applicant(s)<br>CHISHOLM ET AL. |  |
|                              | Examiner<br>Susan W. Berman   | Art Unit<br>1711                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/04, 1/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 is indefinite because, although the claim recites a composition having a refractive index, it is known in the art that it is the cured composition that would have the recited refractive index.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Fong et al (5,932,626) disclose compositions for optical products comprising an alky-substituted brominated phenolic ester (meth)acrylate (columns 5-8). Fong et al disclose unsubstituted aryether (meth)acrylates, such as phenoxyethyl acrylate, and multifunctional (meth)acrylates, such as ethoxylated tetrabromobisphenol A diacrylate or modified epoxy acrylates, and brominated monomers such as pentabromophenylacrylate (column 9, line 40, to column 10, line 26). Photoinitiators are taught for photopolymerizing the disclosed compositions. Thus Fong et al disclose compositions comprising species of monomers corresponding to those in the instant claims. Fong et al also teach using amounts of the monomers within the ranges set forth in instant claim 22.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (6,206,550). Fukushima et al disclose compositions comprising a compound of formula I and 20 to 80 parts by weight of other (meth)acrylate compounds and a photoinitiator, such as an acylphosphine oxide, for preparing a lens sheet (column 5, lines 7-11). The multifunctional (meth)acrylate B-1 taught in column 5 and claim 11 corresponds to several species of the instantly claimed multifunctional (meth)acrylate. Fukushima et al teach adding an arylthioether (meth)acrylate of formula V or VI in column 7 as component B-2 or an aryloether (meth)acrylate of formula III in column 6 as B-2. Fukushima et al teach weight percents that overlap the ranges instantly claimed. It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising components selected from those taught by Fukushima et al corresponding to the components set forth in the instant claims and in amounts within the instantly claimed ranges because such compositions are taught by Fukushima et al as being useful for providing high refractive index lens sheets.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,833,391. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons. The claims of US '391, although not identical to the instant claims, set forth compositions comprising the same components or species of the same components as are set forth in the instant claims. With respect to claim 1, It would have been obvious to one skilled in the art at the time of the invention to select only the thio species of the aryether (meth)acrylate monomers set forth in claim 18 of US '391. With respect to claim 18, It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising the components set forth because these compositions are set forth in claims 1 and 4 of US '391.

Claims 1-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8-18 of copending Application No. 10/897,364 [US 2005/0049376]. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons. Claim 8 of '364 in combination with claim 10 and claim 11 sets forth compositions comprising the (meth)acrylates set forth in the instant claims and a photoinitiator. The comprising language of the instant claims encompasses the additional monomers, such as the compound of formula (I) in claim 8. Thus the instantly claimed compositions are an obvious combination of the (meth)acrylates set forth in the claims of '364.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fong et al (5,908,874) disclose compositions comprising an unsubstituted phenoxy acrylate monomer (FIG 1), a multifunctional methacrylate monomer (see FIG 2 , RDX 51027) and a tribromophenoxy (meth)acrylate monomer (FIG 3). Fong et al teach radiation curing with ultraviolet light, but do not mention adding a photoinitiator.

Rot et al (5,479,555) disclose photocurable compositions comprising a multifunctional methacrylate monomer, compound (I) in column 3, lines 25-66, that differs from the instantly claimed multifunctional (meth)acrylate by containing ester groups linking the brominated aromatic group  $R_4$  to the acrylate end groups, an unsubstituted phenoxy (meth)acrylate of formula IV in column 4, lines 40-55, a brominated phenyl (meth)acrylate monomer, compound IV in column 4, line 40, to column 5, line 10, and a photoinitiator.

Fukuda et al (4,721,377) disclose compositions for forming highly refractive plastic lens. Brominated (meth)acrylates and multifunctional (meth)acrylates are taught. See formula VI.

Nishio et al (5,714,218) disclose radiation curable compositions comprising brominated (meth)acrylates for optical articles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan W Berman  
Primary Examiner  
Art Unit 1711

SB  
9/13/2005